#### STATE OF CALIFORNIA

#### **ENVIRONMENTAL PROTECTION AGENCY**

#### DEPARTMENT OF TOXIC SUBSTANCES CONTROL

LAWRENCE BERKELEY NATIONAL LABORATORY 1 CYCLOTRON ROAD BERKELEY, CALIFORNIA 94720 DOCKET HWCA 06/07-P004 RE: FINAL ORDER DENYING PETITION FOR REVIEW

EPA ID No. CAD 059 494 310

California Code of Regulations, Title 22 Section 66271.18

### I. INTRODUCTION

On November 17, 2006, the Department of Toxic Substances Control (DTSC) issued a Hazardous Waste Facility Permit (Permit) renewal decision for the Lawrence Berkeley National Laboratory (LBNL) hazardous and mixed waste storage and treatment facility located at 1 Cyclotron Road, Berkeley, California, 94720 (the Facility). On December 21, 2006, Pamela Sihvola and L.A. Wood, on behalf of the Committee to Minimize Toxic Waste (collectively, the Petitioners), submitted a petition for review (an appeal) of DTSC's decision (the Petition). The Petition presented seven (7) comments. This denial constitutes DTSC's final decision on all issues raised in the Petition and it is effective on the date of mailing of this Order pursuant to California Code of Regulations, title 22, section 66271.18 (c).

#### II. JURISDICTION

DTSC has jurisdiction over hazardous waste facility permits and the imposition of conditions on such permits pursuant to the California Health and Safety Code section 25200 et seq., and California Code of Regulations, title 22, section 66271.18.

# III. BACKGROUND

### A. FACILITY DESCRIPTION

The Facility is a hazardous and mixed waste<sup>1</sup> storage and treatment facility situated in the eastern portion of the 130-acre LBNL. The U.S. Department of Energy is the owner of the Facility and the University of California at Berkeley (the University) is the operator. Collectively, the owner and operator are referred to as the "Permittee" in the Permit and this Order. The Facility is comprised of Building 85 and its associated yard with prefabricated units on a roughly 3-acre site. The Facility receives wastes generated by activities at the LBNL. Laboratory chemicals and reagents used for research experiments represent approximately 50 percent of the waste received at the Facility. The remaining waste streams are generated at LBNL's fabrication and maintenance shops.

The following operations are conducted at the Facility: a) Storage of hazardous and mixed wastes in containers; b) consolidation of compatible wastes in U.S.

Department of Transportation (DOT) approved containers; c) lab packing of small waste containers; and d) treatment of some wastes. Wastes are eventually shipped off-site for treatment, disposal or recycling.

Hazardous and mixed wastes accepted at the Facility are liquid and solid federal Resource Conservation and Recovery Act (RCRA) and California-only hazardous

<sup>&</sup>lt;sup>1</sup> Mixed waste is radioactive waste that is also hazardous waste under 40 CFR section Part 261. DTSC regulates only the hazardous component(s) of mixed waste.

waste.<sup>2</sup> Examples include corrosive liquids, solvents, oils, coolants, contaminated soil, motor vehicle batteries, metal sludges, polychlorinated biphenyls (PCBs) and PCB-contaminated equipment, mercury wastes, oily rags, latex and oil-based paint materials, and spent activated carbon.

#### B. FACILITY HISTORY

The Facility began operating in Building 85 in April 1997. From the early 1980s until April 1997, it operated in Building 75. DTSC's most recent 10-year permit for the Facility was issued in 1993 and expired in 2003. However, the Permittee submitted a renewal application in November 2002, which extended the 1993 permit by operation of law pending a final decision by DTSC on the Permit renewal.

### C. PERMIT DECISION

In November 2002, the Permittee submitted the Part A and Part B Permit renewal applications for the Permit (collectively, the Application). In September 2004, DTSC issued a draft Permit renewal decision for the Facility for a 60-day public comment period. A public hearing was held on October 20, 2004. The Petitioners filed comments during the public comment period.

Pursuant to the California Environmental Quality Act (CEQA) (Pub. Res. Code § 21000 et seq.), the University is the lead agency for activities at the LBNL, including the Facility. Also pursuant to CEQA, DTSC is a responsible agency for purposes of operation of the Facility. The University analyzed the effects of the Facility's operations in several environmental documents it prepared and certified pursuant to CEQA, including, but not limited to, a Final Environmental Impact Report (EIR) for Construction and Replacement of the Hazardous Waste Handling Facility, issued in May, 1990, an Addendum to that EIR issued in March 2003, the *Final Safety Analysis for the* 

<sup>&</sup>lt;sup>2</sup> The Permit does not pertain to or authorize storage or treatment of waste that is only radioactive waste. The U.S. Department of Energy has authority over the radioactive waste at this Facility.

Hazardous Waste Handling Operations at the LBNL issued in 1997 and the Updated Risk Analysis for the LBNL Hazardous Waste Handling Facility, issued in October 2002 (See pages 10 and 11 of the Permit for a more complete list of CEQA documents). DTSC considered all of the CEQA documents that concerned the Facility and concluded that they adequately assessed the potential impacts of continued operation of the Facility under the renewed Permit. Consequently, DTSC determined that preparation and consideration of additional CEQA documents was not required prior to issuance of the draft and final renewal Permit.

On November 17, 2006, DTSC issued the final Hazardous Waste Facilities

Permit renewal decision for the Facility, along with a Response to Comments document that included responses to comments that were received during the public comment period. The changes from the draft permit to the final Permit mainly comprised corrections to typographical errors and updating of information.

### D. PERMIT APPEAL PROCESS

Pursuant to California Code of Regulations, title 22, section 6627 1.18(a), the period for filing a petition for review (appeal) of this final Permit decision ended on December 22, 2006. Petitioners filed their Petition on or before that date. Pursuant to California Code of Regulations, title 22, sections 66271.14(b)(2) and 66271.15, and based on the nature of Petitioner's comments, the Permit has been stayed pending DTSC review of the Petition pursuant to California Code of Regulations, title 22, section 66271.18.

# IV. STANDARD OF REVIEW

California Code of Regulations, title 22, section 66271.18(a), provides that any person who filed comments or participated in the public hearing may petition DTSC for review of any condition of the final permit decision. Any person who did not file comments or participate in the public hearing may petition for review of only the changes from the draft to the final permit decision. Petitions shall include a statement of

the reasons supporting the review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing for the draft permit) to the extent required by the regulations.

California Code of Regulations, title 22, section 66271.12 requires commenters to raise all reasonably ascertainable issues by the close of the public comment period. Specifically, this section states that "All persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Department's tentative decision to deny an application or prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position." Thus, those persons who filed comments, or participated in the public hearing for the draft permit decision may petition the Department to review any condition of the final permit decision, to the extent they demonstrate that the issues raised in the petition for review were either: (i) also raised during the public comment period for the draft permit decision, including the public hearing, or (ii) were not reasonably ascertainable at the time of the public comment period.

Section 66271.18(a) also provides, in pertinent part, that:

"The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by these regulations and when appropriate, a showing that the condition in question is based on:

- (1) a finding of fact or conclusion of law which is clearly erroneous, or
- (2) an exercise of discretion or an important policy consideration which the Department should, in its discretion, review."

The Petitioners submitted comments on the draft permit during the public comment period. Therefore, Petitioners have standing to petition for review of any issues raised during the public comment period for the draft permit renewal decision, as well as (i) any issues that pertain to changes from the draft to the final Permit decision and (ii) any issues that were not reasonably ascertainable during the public comment period for the draft Permit decision.

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Any issues raised in the appeal that relate to the California Environmental Quality Act (CEQA, Pub. Resources Code §21000 et seg.) will not be addressed in this Order. CEQA provides a separate judicial appeal process to resolve disputes concerning compliance with CEQA. The permit appeal process is not the proper forum in which to raise CEQA issues.

# V. FINDINGS

# Appeal Comment 1

DTSC issued a HWFP to LBNL in May 1993. As a part of this permit, DTSC requires LBNL to investigate and clean up all historical releases of hazardous chemicals. Therefore it is a fact that one of the conditions of the waste permit is the clean up of historical hazardous chemical releases at LBNL. This condition of the permit has not been met. Be aware that there are at least eight (8) legacy groundwater hazardous chemical contamination plumes left onsite, after the Department of Energy (DOE) ceased funding LBNL's RCRA Environmental Restoration Program (ERP), which was terminated on September 30, 2006. The contamination, up stream from the city of Berkeley, in a complex hydrogeology of the Strawberry Creek Watershed, includes the Old Town Area plumes as well as the large radioactive tritium plume within which at least seven (7) areas are identified containing Volatile Organic Compounds (VOCs). (See attachments 1, 2 & 3.)

LBNL's failure to cleanup legacy groundwater hazardous chemical contamination plumes are a clear variance from DTSC's mandated cleanup policies and therefore. DTSC should review this important policy consideration.

# Response

Petitioners do not have standing to raise this issue under California Code of Regulations, title 22, section 66 271.18 (a) because (1) this issue (alleged lack of

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progress on corrective action) was not raised in written comments or at the public hearing concerning the draft Permit and (2) this issue was reasonably ascertainable at the time of the public comment period, which ran from September 21, 2004, through November 19, 2004. Petitioners commented on the Corrective Measures Implementation Plan in September 2005, but this was not during the public comment period for the draft Permit.

Even if, arguendo. Petitioners had standing to raise this issue in conjunction with the final Permit decision, DTSC disagrees with Petitioners' claim that the Permittee has not been investigating, designing and implementing a corrective action program as required by the 1993 permit. Part IV of the Permit and the Part XI of the Part B Application document investigations that the Permittee has been conducting and reports that were prepared from 1991 through 2006, that identify the units and areas that warrant further investigation and/or corrective action. As discussed in Part IV of the Permit, the Permittee submitted a Corrective Measures Implementation Workplan in November 2005, and in March 2006, DTSC approved the plan and directed the Permittee to proceed with implementation pursuant to the schedule in the plan. The Part B application and the Corrective Measure Implementation Workplan identify specific groundwater plumes that will be remediated, including an "Old Town" groundwater solvent plume. As discussed in Part III of this Order, DTSC does not have authority over radioactive substances and therefore the aspect of Petitioners' comment regarding radioactive tritium is not addressed by the DTSC Permit and this Order.

# Appeal Comment 2

Petitioner contends that DTSC should exercise its discretion in not granting the permit, in the interest of providing safety to the public. According to the Petitioner, access to the Facility had been severely compromised by an active landslide, since the

prior winter's rains, which has taken out half of Centennial Drive about 300 meters south of the entrance gate to the Facility. Petitioner asserted this poses a great danger to the public, should there be a fire and/or hazardous chemical release at the Facility and mutual aid is required from the city's fire station No. 2 on Berkeley Way, where the hazardous materials specialists are located. Petitioner stated that the current and historic landslide conditions on Centennial Drive are preventing Berkeley fire trucks the fastest and most direct access to the HWHF.

### Response

This appeal comment pertains to the CEQA issues for this project. CEQA provides a separate judicial appeal process to resolve disputes concerning compliance with CEQA. This appeal proceeding is not the proper forum in which to raise issues concerning compliance with CEQA. Furthermore, the University and the City of Berkeley control road design and construction outside of the Facility. DTSC does not have authority beyond the boundaries of the Facility that is regulated by DTSC's Permit.

DTSC's Response to Comments document demonstrates that DTSC carefully considered seismic, landslide and access issues and concluded that operations at the Facility that are regulated by the final Permit are adequately protective of public health and safety. (See, for example, Response to Comments B.4. (c), 18-2, 18-3 and 21-1 (c). According to these responses, LBNL has its own onsite fully functional fire department, capable of responding to hazardous waste handling at Facility emergencies in less than five (5) minutes. In addition to its mutual aid agreement with the City of Berkeley, LBNL also has a contract with the Alameda County Fire Department and is part of the California Master Mutual Aid Agreement whereby fire support can be requested through the local mutual aid coordinator or directly through the City of Oakland. The comment raised the concern that the City of Berkeley's hazardous materials specialists might not have the fastest and most direct access to the Facility if and when Centennial Drive is

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partially blocked. However, Response B.4. states that the Alameda County Fire

Department has 24 hours/day, seven day/week hazardous materials response
capability and Response 7-2 states that there is more than one access road available.

Numerous responses also indicate that the Facility is designed in accordance with the
California Fire Code and other relevant design criteria.

Based on all of the reasons discussed above, DTSC denies review of this appeal comment because it pertains to CEQA and Petitioner has failed to demonstrate that a particular permit condition is based on a finding of fact or conclusion of law that is clearly erroneous or an exercise of discretion or an important policy consideration that DTSC should, in its discretion, review as required by California Code of Regulations, title 22, section 66271.18(a).

# **Appeal Comment 3**

Petitioner asserts that DTSC failed to answer Comment No. 19-12, in its response to comments document (November 17, 2006) regarding which alarm and notification systems will be deployed by LBNL in case of fire and/or earthquake. In an event of a release of chemical, radioactive, organic or mixed waste from the Facility by accident or terrorist intent, Petitioner inquired about what alarm or notification systems would be deployed to protect LBNL personnel, UC staff and students, local residents and surrounding communities. Petitioner commented that in planning, DTSC's public safety program policy should follow its mandate to make permit decisions that are protective of human health and the environment. Petitioner asserted that DTSC's failure to answer the question above in its Response to Comments indicates that DTSC has not fulfilled its mandate. Therefore, Petitioner asserted that no permit should be issued until LBNL has an adequate system of alarms and notification to the public in place.

# Response

To analyze risk, safety issues, and specific regulatory requirements, DTSC staff reviewed among other things (a) the *Final Safety Analysis* prepared in April 1997, which was updated in October 2002, by the *Updated Risk Analysis for Berkeley Laboratory Hazardous Waste Handling Facility* (collectively referred to in this Order as the "Final"

Safety Analysis Document" or "FSAD"); and (b) the Contingency Plan prepared by the Permittee and submitted as part of the Part B Application for the Permit. For the specific hazardous wastes and container quantities authorized by the Permit, the FSAD concluded the Facility is engineered to prevent off site migration of liquid waste and that an airborne release harmful to people off site is a very low risk.

With regard to residents that live near the Facility, Response to Comment 19-12 (a) incorporated Response to Comment 18-4. Response to Comment 18-4 (b) stated that the FSAD determined that risks from an accidental release of hazardous waste extend only within 99 meters of the Facility, which is within the LBNL fence line and thus does not create risk (and by implication the need for special notification or alarms beyond those described below) for nearby residents.

For employees, Response to Comment 19-12 (b) incorporated Response to Comment B.3, which explained that the FSAD analyzed risks associated with normal operations at the Facility as well as accident scenarios. The study concluded that risks at the Facility do not exceed Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH) and other standard exposure criteria.

DTSC's regulations and the Contingency Plan (incorporated into the Permit) provide that the primary notification for offsite personnel shall be handled through local authorities. At LBNL, the onsite Fire Department Emergency Coordinator is empowered by the Contingency Plan to assess the situation and notify the appropriate local authorities if a release, fire, or explosion threatens human health or the environment. (See, Contingency Plan, page VIII-71, 8.3 Evacuation of Local Areas.) It would then be the local authorities' responsibility to notify offsite people, as appropriate. The Contingency Plan also specifies when LBNL emergency coordinators must notify the State Office of Homeland Security. The specific notifications are listed in Chapter 5 of the Contingency Plan, Notification and Reporting, starting on page VIII-43. There are three kinds of notifications: immediate, after, and later follow -up reporting.

Following are regulatory requirements concerning notification and alarms at the Facility.

- Facilities shall have an internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; a device to summon emergency assistance, portable fire extinguishers, and water at adequate volume and pressure. (Cal. Code Regs., tit. 22, § 66264.32)
- Facilities shall have access to a communications or alarm system, whenever hazardous waste is being handled and all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device. (Cal. Code Regs., tit. 22, § 66264.34)
- Facilities shall attempt to make arrangements for the following: (1) Familiarizing police, fire departments, emergency response teams and the local Office of Emergency Services with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes; (2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority; (3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and (4) Familiarizing local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility. (Cal. Code Regs., tit. 22, § 66264.37)
- California Code of Regulations, title 22, sections 66266.64. 51-56 specify the purpose, implementation, content, distribution of copies, duties of the emergency coordinator, and emergency procedures.

The California Code of Regulations, title 22 does not require direct public notification or use of community alarms if there is a release of hazardous waste from permitted hazardous waste management units. Federal OSHA standards also do not require direct notification procedures and alarms as part of the permit conditions. DTSC has discretionary authority to impose permit conditions more stringent than the baseline regulatory requirements on a case-by-case basis. For this Permit, the findings of the FSAD and the provisions within the Facility's Contingency Plan indicated to DTSC staff

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that the Facility had an adequate alarm and notification system in place with regard to the hazardous waste operations conducted at the Facility.

For the reasons discussed above, DTSC denies this appeal comment because Petitioner has failed to demonstrate that a particular permit condition is based on a finding of fact or conclusion of law that is clearly erroneous or an exercise of discretion that raises an important policy consideration that DTSC should, in its discretion, review as required by California Code of Regulations, title 22, section 66271.18(a).

Because DTSC's Permit only regulates hazardous waste, it was beyond the scope of DTSC's Response to Comment 19-12 to address releases of radioactive waste or any chemicals that are not hazardous waste. It is also beyond DTSC's authority and mandate to address or regulate activities at the LBNL that do not involve hazardous waste and/or are not regulated by our Permit.

# **Appeal Comment 4**

Petitioner contends that LBNL's request to continue to store the same volumes of hazardous and mixed waste (23,320 gallons) is to contradict the very purpose of LBNL's waste minimization program, another condition of the HWFP.

Since the 1993 permit, LBNL states that the lab's mixed waste has been reduced by 91% and hazardous waste by 77%. This averages an overall 84% reduction. To be an effective and meaningful waste minimization program, DTSC should demand that LBNL reduce its aggregate capacity of hazardous and mixed-waste to 3,750 gallons to reflect this 84% reduction.

# Response

As discussed in DTSC's Response to Comments document, the Facility is designed to safely manage the requested capacity. Also, the Facility may want to enter into other research projects in the future or conduct demolition projects that would require the permitted capacity. Thus, the capacity allowed in the Permit achieves health and safety goals and provides the Facility with the operational flexibility it may need.

For the reasons discussed above, DTSC finds that Petitioner has failed to meet the burden to establish that DTSC should grant a review of this issue pursuant to the criteria for review set forth in California Code of Regulations, title 22, section 66271.18(a), because Petitioner has failed to demonstrate that the permit condition in question is based on a finding of fact or conclusion of law that is clearly erroneous or raises an exercise of discretion or an important policy consideration that DTSC should, in its discretion, review.

# **Appeal Comment 5**

The HWF permit of May 1993, was to be in effect until May 2003. Therefore we ask that if and when the new permit is issued, the effective starting date should be made retroactive to May 2003, and the expiration date of any new permit to be set at May 2013, and not December 2016.

### Response

Arguably, Petitioner does not have standing to raise this issue because the Petition does not demonstrate the issue of setting back the expiration date was raised during the public comment period, even though the information was reasonably ascertainable. However, due to the fact that the *specific* effective and expiration dates were a change from the draft to the final Permit and because the ten (10) year term of the Permit was raised during the public comment period, DTSC will respond to this comment.

Health and Safety Code section 25200 (c) (1) (B) and California Code of Regulations, title 22, section 66270.51 extended the term of the previous permit until the effective date of the renewal Permit. Once the Petition was filed, the renewal Permit was stayed, and according to the regulations any stayed conditions become effective if and when DTSC issues an order that denies review pursuant to California Code of Regulations, title 22, sections 66271.14 and 66271.18. Thus, DTSC does not have the

authority to set back the starting date of this Permit so that it overlaps with the term of the previous permit, which was extended by operation of law.

Health and Safety Code section 25200 (c) (1) (A) and California Code of Regulations, title 22, section 66270.50 allow DTSC to issue permits for up to ten (10) years. DTSC's permits generally have terms of ten (10) years unless DTSC determines on a case-by-case basis that there is some reason to issue a permit for less than ten (10) years. In this case, as discussed in the Response to Comments, DTSC reviewed all technical information, including the Part B application, CEQA documents and the Facility Safety Analysis Document (including updates) and determined that the evidence supported issuing the Permit for the full ten (10) year term. However, if circumstances change in the future or other information indicates that any activities at the Facility should be changed or curtailed, DTSC and/or the Permittee can initiate permit modifications to accomplish those goals. Also, unless and until the entire LBNL ceases operating, it is likely it will continue to generate hazardous waste. It is more environmentally protective to have an onsite Facility regulated by a DTSC Permit and applicable hazardous waste statutes and regulations to store, consolidate and treat LBNL's hazardous waste prior to shipment off-site.

Based on the above reasons, DTSC denies review of this issue because Petitioner has failed to demonstrate that the permit condition in question is based on a finding of fact or conclusion of law that is clearly erroneous or an exercise of discretion or an important policy consideration that DTSC should, in its discretion, review.

# **Appeal Comment 6**

LBNL is not "a university-owned facility" as stated repeatedly in the DTSC's response to comments document, but is owned by the Department of Energy and the University of California manages the laboratory for DOE. Please correct this error.

# Response

This comment is not an appeal of any condition of the Permit and does not raise issues that merit review pursuant to California Code of Regulations, title 22, section 66271.18 (a). For clarification however, the Permit and numerous other DTSC documents state that DOE is the owner and the University is the operator of the Facility. Any statement that indicates otherwise in the Response to Comments was an error and is hereby corrected. DTSC apologizes for any confusion the error(s) may have caused.

# **Appeal Comment 7**

In view of the above concerns, we request DTSC require LBNL to include an analysis of the environmental impacts from the proposed and continued operations of the HWHF in LBNL's Long Range Development Plan Environmental Impact Report (LRDP, EIR), due to be released in the next couple of weeks (January 2007).

In addition, we request that DTSC postpone its final decision regarding the LBNL HWF permit renewal until after the LRDP has been circulated for public comment and the process has been completed.

# Response

For a substantive discussion of this issue, please see Part B.6., of DTSC's Response to Comments document issued November 17, 2006. This appeal comment pertains to the CEQA documents and CEQA process for this project. CEQA provides a separate judicial appeal process to resolve disputes concerning compliance with CEQA. This appeal proceeding is not the proper forum in which to raise issues concerning compliance with CEQA. The Comment also does not demonstrate that a permit condition is based on a finding of fact or conclusion of law that is clearly erroneous, or an exercise of discretion, or an important policy consideration that DTSC should, in its

discretion, review. For these reasons, DTSC denies the review of the issues raised in this appeal comment.

# VI. ORDER

DTSC finds that the Petitioners have failed to demonstrate that the issues raised in these appeal comments meet the criteria for review and DTSC therefore denies the Petition. This Order constitutes the Department's final decision on the merits of Petitioners' appeal. The temporary stay of the Permit is hereby lifted and it is immediately and fully effective and enforceable.

DATED: July 31, 2007

//original signed by//

Watson Gin, P.E., Deputy Director Hazardous Waste Management Program Department of Toxic Substances Control-